Abstract of the Invention

An apparatus and method for accurate speech recognition of an input speech spectrum vector in the Mandarin Chinese language comprising selecting a set of nine stationary Mandarin vowels for use as phonetic feature reference vowels, calculating projection and relative projection similarities of the input vector on the nine stationary Mandarin reference vowels, selecting from among said nine stationary Mandarin vowels a set of high projection similarity vowels, selecting from said set of high projection similarity vowels, the stationary Mandarin vowel having the highest relative projection similarity with the input vector, and selecting a vowel from said nine stationary Mandarin vowels responsive to a projection similarity measure if said set of high projection similarity vowels is null.